

cystatin B (h2): 293 Lysate: sc-112337

BACKGROUND

Cystatin A (also designated STF1, STFA, stefin A or cystatin AS) and cystatin B (also designated PME, CST6, STFB, CPI-B, stefin B or liver thiol proteinase inhibitor) are thiol protease inhibitors that form complexes with papain and the cathepsins B, H and L. Cystatin A, a cytoplasmic protein, is one of the precursor proteins of the cornified cell envelope in keratinocytes and plays a role in epidermal development and maintenance. Cystatin B protects against intracellular proteases leaking out of lysosomes and is primarily expressed in heart, liver and kidney.

REFERENCES

1. Ritonja, A., et al. 1985. Amino acid sequence of the intracellular cysteine proteinase inhibitor cystatin B from human liver. *Biochem. Biophys. Res. Commun.* 131: 1187-1192.
2. Jerala, R., et al. 1988. Cloning a synthetic gene for human stefin B and its expression in *E. coli*. *FEBS Lett.* 239: 41-44.
3. Pennacchio, L.A., et al. 1996. Mutations in the gene encoding cystatin B in progressive myoclonus epilepsy (EPM1). *Science* 271: 1731-1734.
4. Kos, J., et al. 1998. Cysteine proteinases and their endogenous inhibitors: target proteins for prognosis, diagnosis and therapy in cancer (review). *Oncol. Rep.* 5: 1349-1361.
5. Takahashi, H., et al. 1998. Structure and transcriptional regulation of the human cystatin A gene. The 12-O-tetradecanoylphorbol-13-acetate (TPA) responsive element-2 site (-272 to -278) on cystatin A gene is critical for TPA-dependent regulation. *J. Biol. Chem.* 273: 17375-17380.
6. Takahashi, H., et al. 2001. Expression of human cystatin A by keratinocytes is positively regulated via the Ras/MEKK1/Mkk7/JNK signal transduction pathway but negatively regulated via the Ras/Raf-1/MEK-1/ERK pathway. *J. Biol. Chem.* 276: 36632-36638.
7. Jenko, S., et al. 2004. Different propensity to form amyloid fibrils by two homologous proteins—human stefins A and B: searching for an explanation. *Proteins* 55: 417-425.

CHROMOSOMAL LOCATION

Genetic locus: CSTB (human) mapping to 21q22.3.

PRODUCT

cystatin B (h2): 293 Lysate represents a lysate of human cystatin B transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

cystatin B (h2): 293 Lysate is suitable as a Western Blotting positive control for human reactive cystatin B antibodies. Recommended use: 10-20 µl per lane.

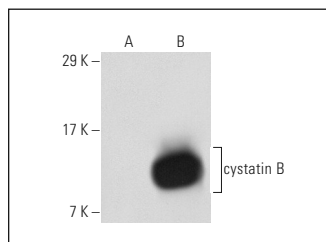
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

cystatin B (RJMw 2E7): sc-32802 is recommended as a positive control antibody for Western Blot analysis of enhanced human cystatin B expression in cystatin B transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

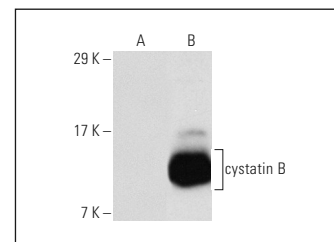
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



cystatin B (RJMw 2E7): sc-32802. Western blot analysis of cystatin B expression in non-transfected: sc-110760 (A) and human cystatin B transfected: sc-112337 (B) 293 whole cell lysates.



cystatin B (6A7): sc-101510. Western blot analysis of cystatin B expression in non-transfected: sc-110760 (A) and human cystatin B transfected: sc-112337 (B) 293 whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.